



1 Amendments to the claims:

2

3 1. (Currently amended) A simplified "T" interchange design for
4 an intersection of a four lane expressway with a two lane highway,
5 said interchange design comprising:

6 a first road surface with traffic moving in a left to right
7 direction, said first road surface having at least two lanes for
8 traffic moving in said left to right direction;

9 a second road surface for traffic moving in a right to left
10 direction, said second road surface having at least two lanes for
11 traffic moving in said right to left direction;

12 an open space between said first road surface and said second
13 road surface, said open space substantially forming a median;

14 a third road surface for traffic intending to intersect said
15 first road surface and said second road surface; said third road
16 surface having at least one lane for traffic moving toward said
17 first road surface and said second road surface; said third road
18 surface having at least one lane for traffic moving away from said
19 first road surface and said second road surface;

20 a bridge located on said first road surface substantially
21 where said third road surface intersects said first road surface,
22 said bridge configured so that vehicles traveling on said first
23 road surface pass over said bridge, and above said third road
24 surface; said bridge configured so that vehicles traveling on said
25 third road surface pass under said bridge, and under said first

1 road surface;

2 whereby a "simplified "T" interchange design " is provided
3 that provides many benefits; most importantly, all the hazardous
4 elements of existing expressway "T" intersections are eliminated,
5 the results will be the elimination of all future serious and
6 fatal accidents; also, the new "T" interchange design will be very
7 safe for vehicles passing through the new interchange from any
8 direction as vehicles are never required to cut across lanes of
9 high speed traffic when making transitions between the two lane
10 highway and the four lane expressway; and any vehicles passing in
11 front of one another would at most be traveling at only a few miles
12 an hour, thus, any accidents would be minor; additionally, "on
13 ramps" and "off ramps" can be provided so that vehicle making
14 transitions are able to get up to speed before merging with high
15 speed traffic; also, the new simplified interchange design will not
16 be confusing for vehicles passing through the interchange from any
17 direction even if the interchange is built on a curving expressway,
18 and the interchange would very inexpensive to build when compared
19 to the cost to build a conventional interchange, as the simplified
20 design for a "T" interchange can built for approximately 20% to
21 25% of the cost of a traditional interstate interchange thereby
22 saving government transportation departments millions of dollars,
23 additionally, the simplified "T" interchange design may only take
24 up 20% to 25% of the space of a conventional expressway freeway

1 interchange, thereby saving money and land for other uses.

2
3 2. (Currently amended) The simplified "T" interchange design
4 of claim 1 including an ~~An~~ exit ramp from said first road
5 surface connecting onto said third road surface.

6
7 3. (Currently amended) The simplified "T" interchange design
8 of claim 1 including an ~~An~~ exit ramp from said third road
9 surface connecting onto said first road surface.

10
11 4. (Currently amended) The simplified "T" interchange design
12 of claim 1 including an ~~An~~ exit ramp from said second road
13 surface onto said median , said exit ramp connecting onto said
14 third road surface.

15
16 5. (Currently amended) The simplified "T" interchange design
17 of claim 1 including an ~~An~~ on ramp connecting from said third
18 road surface, passing through ~~from~~ said median, and connecting
19 onto said second road surface.

20
21 6. (Currently amended) A simplified "T" interchange design for
22 an intersection of a four lane expressway with a two lane highway,
23 said interchange design comprising:

24 a first road surface with traffic moving in a left to right

1 direction, said first road surface having at least two lanes for
2 traffic moving in the left to right direction;

3 a second road surface for traffic moving in a right to left
4 direction, said second road surface having at least two lanes for
5 traffic moving in the right to left direction;

6 an open space between said first road surface and said second
7 road surface, said open space substantially forming a median;

8 a third road surface for traffic intending to intersect said
9 first road surface and said second road surface; said third road
10 surface having at least one lane for traffic moving toward said
11 first road surface and said second road surface; said third road
12 surface having at least one lane for traffic moving away from said
13 first road surface and said second road surface;

14 a bridge located on said third road surface substantially
15 where said third road surface intersects said first road surface,
16 said bridge configured so that vehicles traveling on said first
17 road surface pass under said bridge, and, under said third road
18 surface, said bridge configured so that vehicles traveling on said
19 third road surface pass over said bridge, and over said first road
20 surface;

21 whereby a "simplified "T" interchange design " is provided
22 that provides many benefits; most importantly, all the hazardous
23 elements of existing expressway "T" intersections are eliminated,
24 the results will be the elimination of all future serious and

1 fatal accidents; also, the new "T" interchange design will be very
2 safe for vehicles passing through the new interchange from any
3 direction as vehicles are never required to cut across lanes of
4 high speed traffic when making transitions between the two lane
5 highway and the four lane expressway; and any vehicles passing in
6 front of one another would at most be traveling at only a few miles
7 an hour, thus, any accidents would be minor; additionally, "on
8 ramps" and "off ramps" can be provided so that vehicle making
9 transitions are able to get up to speed before merging with high
10 speed traffic; also, the new simplified interchange design will not
11 be confusing for vehicles passing through the interchange from any
12 direction even if the interchange is built on a curving expressway,
13 and the interchange would very inexpensive to build when compared
14 to the cost to build a conventional interchange, as the simplified
15 design for a "T" interchange can built for approximately 20% to
16 25% of the cost of a traditional interstate interchange thereby
17 saving government transportation departments millions of dollars,
18 additionally, the simplified "T" interchange design may only take
19 up 20% to 25% of the space of a conventional expressway freeway
20 interchange, thereby saving money and land for other uses.

21
22 7. (Currently amended) The simplified "T" interchange design of
23 claim 6 including an ~~An~~ exit ramp from said first road surface
24 connecting onto said third road surface.

1 8. (Currently amended) The simplified "T" interchange design of
2 claim 6 including an ~~An~~ exit ramp from said third road surface
3 connecting onto said first road surface.

4
5 9. (Currently amended) The simplified "T" interchange design of
6 claim 6 including an ~~An~~ exit ramp from said second road surface
7 onto said median , said exit ramp connecting onto said third road
8 surface.

9
10 10. (Currently amended) The simplified "T" interchange design of
11 claim 6 including an ~~An~~ on ramp connecting from said third road
12 surface, passing through ~~from~~ said median, and connecting onto
13 said second road surface.

14
15 11. (New) A simplified "T" interchange design for an intersection
16 of a four lane expressway with a two lane highway, said interchange
17 design comprising:

18 a first road surface with traffic moving in a left to right
19 direction, said first road surface having at least two lanes for
20 traffic moving in said left to right direction,

21 a second road surface for traffic moving in a right to left
22 direction, said second road surface having at least two lanes for
23 traffic moving in said right to left direction ,

24 an open space between said first road surface and said second

1 road surface, said open space substantially forming a median;

2 a third road surface for traffic intending to intersect said
3 first road surface and said second road surface; said third road
4 surface having at least one lane for traffic moving toward said
5 first road surface and said second road surface; said third road
6 surface having at least one lane for traffic moving away from said
7 first road surface and said second road surface;

8 a bridge located on said first road surface substantially
9 where said third road surface intersects said first road surface,
10 said bridge configured so that vehicles traveling on said first
11 road surface pass over said bridge, and over said third road
12 surface; said bridge configured so that vehicles traveling on said
13 third road surface pass under said bridge, and under said first
14 road surface;

15 an exit ramp from said second road surface onto said median ,
16 said exit ramp connecting onto said third road surface;

17 an on ramp connecting from said third road surface, passing
18 through said median, and connecting onto said second road surface;

19 whereby a "simplified "T" interchange design " is provided
20 that provides many benefits; most importantly, all the hazardous
21 elements of existing expressway "T" intersections are eliminated,
22 the results will be the elimination of all future serious and
23 fatal accidents; also, the new "T" interchange design will be very
24 safe for vehicles passing through the new interchange from any

1 direction as vehicles are never required to cut across lanes of
2 high speed traffic when making transitions between the two lane
3 highway and the four lane expressway; and any vehicles passing in
4 front of one another would at most be traveling at only a few miles
5 an hour, thus, any accidents would be minor; additionally, "on
6 ramps" and "off ramps" can be provided so that vehicle making
7 transitions are able to get up to speed before merging with high
8 speed traffic; also, the new simplified interchange design will not
9 be confusing for vehicles passing through the interchange from any
10 direction even if the interchange is built on a curving expressway,
11 and the interchange would very inexpensive to build when compared
12 to the cost to build a conventional interchange, as the simplified
13 design for a "T" interchange can built for approximately 20% to
14 25% of the cost of a traditional interstate interchange thereby
15 saving government transportation departments millions of dollars,
16 additionally, the simplified "T" interchange design may only take
17 up 20% to 25% of the space of a conventional expressway freeway
18 interchange, thereby saving money and land for other uses.

19
20 12. (New) The simplified "T" interchange design of claim 11
21 including an exit ramp from said first road surface connecting onto
22 said third road surface.

23
24 13. (new) The simplified "T" interchange design of claim 11

1 including an exit ramp from said third road surface connecting onto
2 said first road surface.

3
4 14. (new) The simplified "T" interchange design of claim 11
5 including a traffic signal at the end of said third road surface
6 substantially where said third road surface meets said second road
7 surface.

8
9 15. (new) The simplified "T" interchange design of claim 11
10 including a traffic signal at the end of said exit ramp
11 substantially where said exit ramp from said second road surface
12 meets said third road surface.

13
14 16. (New) The simplified "T" interchange design of claim 11
15 including an exit ramp from said first road surface connecting onto
16 said third road surface; also,
17 including an exit ramp from said third road surface connecting
18 onto said first road surface; also,
19 including a traffic signal at the end of said third road
20 surface substantially where said third road surface meets said
21 second road surface; also,
22 including a traffic signal at the end of said exit ramp
23 substantially where said exit ramp from said second road surface
24 meets said third road surface.

1 17. (new) The simplified "T" interchange design of claim 11
2 including an "up ramp" on said first surface originating at the
3 ground level of said interchange location, said "up ramp" rising to
4 meet the top of said bridge; and, a "down ramp" originating at said
5 top of said bridge, said "down ramp" terminating at said ground
6 level of said interchange location.

7
8 18. (new) The simplified "T" interchange design of claim 11
9 wherein said bridge is an arched bridge with Brownstone color &
10 texture that is similar to native brownstone located Bayfield
11 County Wisconsin;

12 thereby providing a design that would be very attractive and
13 could be a land mark and could be referred to as "a gateway" to the
14 local national park and Apostle Islands; additionally an arched
15 brownstone bridge could be designed to look as if it were built
16 hundreds or even a thousand years ago similar to Roman Bridges
17 built in Europe more than a thousand years ago.

18
19 19. (new) The simplified "T" interchange design of claim 11
20 wherein said bridge and ramps have a Brownstone color & texture
21 that is similar to native brownstone located Bayfield County
22 Wisconsin;

23 thereby providing a design that would be very attractive and
24 could be a land mark and could be referred to as "a gateway" to the

1 local national park and Apostle Islands.

2

3 20. (new) The simplified "T" interchange design of claim 11
4 wherein said bridge and ramps have a color & texture that is
5 similar to native stone wherever said simplified "T" interchange is
6 built ;

7 thereby providing a design that would be very attractive
8 wherever said simplified "T" interchange is built.